Name:

at1124exam: Radicals and Squares (v829)

Question 1

Simplify the radical expressions.

$$\sqrt{20} \qquad \sqrt{50} \qquad \sqrt{12}$$

Question 2

Find all solutions to the equation below:

$$\frac{(x+6)^2}{2} - 4 \;=\; 4$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 6x \;=\; 27$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \;=\; 2x^2 + 12x + 10$$

Express the function in **vertex form** and identify the **location** of the vertex.